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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/634,910	08/06/2003	Woon-Song Baik	K-0528	7365

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Chantilly, VA 20153-1200

EXAMINER

LEVITAN, DMITRY

ART UNIT	PAPER NUMBER
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2616

MAIL DATE	DELIVERY MODE
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05/01/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/634,910

Applicant(s)

BAIK, WOON-SONG

Examiner

Dmitry Levitan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 August 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Preliminary amendment, filed 8/06/03, has been entered. Claims 1-20 remain pending.

Drawings

1. The drawings are objected to because of typographical errors on Fig. 2 and Fig. 4.
2. Path 'b' shown on Fig. 7 is unclear, as it does not properly show the connection between 30 and 710, as the elements of the path are not identified.
3. Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. Current labels "Related Art" do not identify the old status of the drawings, as all drawings of the application are related art to the disclosure. See MPEP § 608.02(g).
4. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will

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be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

5. The disclosure is objected to because of the following informalities:
 - a. typographical errors on line 4 of page 3, as all three reference numbers are incorrect.
 - b. unreadable portions of Table 1, [0043], wherein first line of the table comprise poor quality text.
 - c. Unclear text on page 23, [0071], directed to the connection between agent 710 and the subscriber. The connections of agent 710 to other elements of the system are unclear. It is unclear if Path '1' of Fig. 7 is a direct connection between 720 and 710 or these elements are connected through Internet 20.

Appropriate correction is required.

Claim Objections

6. Claim 11 is objected to because of the following informalities: abbreviation IPsec should be fully disclosed in the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claim 20 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification does not provide sufficient details to enable a skilled in the art to make and use the invention because it does not adequately describe the following:

Regarding claim 20, the operation of Internet host, connected between the agent and the Internet for enabling Internet subscriber and mobile terminals connections to the agent.

The specification does not provide enough details about the structure and operation of the elements associated with the above identified claimed features to enable one skilled in the art to make and use the invention without undue experimentation.

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention:

10. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 limitations, directed to "set a terminating call of the received packet based on the registered packet terminating call filtering information" are unclear as written. In addition, claim 1 limitations "a packet terminating call" are unclear what is terminated: a packet or a call.

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Claim 8 limitations, directed to “a protocol number (Ipv4) / next header (Ipv6)” are unclear as written.

Claim 12 limitations, directed to “a type of service (TOS) (Ipv4) / a traffic class (Ipv6) and mask” are unclear as written.

Claims 16, 18-20 limitations, directed to “inquiring and/or updating” and “inquiry and/or update message” are unclear, because it is not understood what is claimed: inquiring and updating or inquiring or updating.

Claims, comprising multiple “and/or”, are confusing, as it is not understood if one or two actions or one or two messages are claimed.

Claim 20 limitations comprising “filtering information from Internet subscriber and/or mobile terminal” are unclear, because it is not understood who provides the filtering information: Internet subscriber or mobile terminal.

Claim 14 limitations, directed to “static information” are unclear, as it is not understood what information is considered static and what is not.

Examiner requests total review of the claims for clarity, as many claims are poorly translated.

Other claims are rejected as the claims depending on the claims rejected above.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. Claims 1-6, 14-16, 18 and 19 (as best understood) are rejected under 35 U.S.C. 102(e) as being anticipated by Uskela (US 6,980,512).

13. Regarding claim 1, Uskela teaches a method for controlling a packet terminating call in a mobile communication system (mobile system, shown on Fig. 1 and 4:44-5:30, wherein GGSN 7 performs screening/filtering for packets directed to the mobile user 1), comprising:

registering filtering information for a packet terminating call for at least one subscriber (creating a screening list for subscribers to screen/filter the calls received from external terminals 5 according to connection point identifiers, CEI, as shown on Fig. 2 and 5:51-6:25);

determining to set the registered filtering information for the received packet of a terminating call to the subscriber, as a subscriber is the destination of the packet (activating screening/filtering procedure at step S101 and loading the screening list at step S102 on Fig. 2 and 5:57-65), and

setting the terminating call according to the determination step above (performing CEI check and packet termination according to steps S103-S106 on Fig. 2).

14. Regarding claim 2, Uskela teaches call screening list to comprise information on activating the screen list, as establishing detection points for received/transmitted packets, as internetworking process between the GGSN and IP, wherein the detection point activate/start interrogation process for a subnetwork, comprising several addresses 6:61-7:36, as shown in example 7:37-53.

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15. Regarding claim 3, Uskela teaches call screening list to comprise information on activating the screen list filtering, including denial and permission, as the list comprise tags identifying whether to allow or deny the reception of certain packets 2:46-50.

16. Regarding claims 4-6, Uskela teaches call screening list to comprise the received packets CEI, including IP addresses, port numbers and other information identifying the packet source, as the CEI of a packet is inherently located in the header of the packet, wherein the CEI packet information is inherently indicated by a known pattern, 5:66-6:25.

17. Regarding claim 14, Uskela teaches GGSN node comprising the packet screening list, according to static information 5:1-37 and 5:51-55.

18. Regarding claim 15, Uskela teaches receiving a packet from a mobile user, identifying the packet CEI and using the CEI of the packet to register the packet screening list information based on the received packet, as shown on Fig. 3 and 6:61-7:54.

19. Regarding claims 16 and 18, Uskela teaches performing screening for uplink packets in the mobile terminal to avoid air time charges 5:14-24 and propagating the screening list across the network. Therefore, the screening list, created in dynamic process of Fig. 3 and 6:1-7:54, as a result of inquiry of the mobile unit and subsequent update/creation of the screening list, is transferred to the mobile unit.

In addition, regarding claim 18, Uskela teaches strong authentication for the system due to the charging involved 6:21-24, therefore authenticating the mobile subscriber in the system.

20. Regarding claim 19, Uskela teaches an apparatus for controlling a packet terminating call in a mobile communication system (GGSN 7, as shown on Fig. 1 and 4:44-5:5), comprising:

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a database which stores routing information and filtering information of a protocol data unit for a packet radio service (memory of GGSN to store the screening list 5:14-31, which comprises routing and filtering information as shown in example 7:37-54);

a terminating call control section which controls a terminating call setting for the protocol data unit based on the routing information and the filtering information (portion of GGSN to perform call termination according to the process, shown on Fig. 3 and 6:61-7:54);

a message processing section which performs an inquiry and/or update of the filtering information based on an inquiry message and/or update message of the filtering information (portion of GGSN performing inquiry for records at step S205, shown on Fig. 3 and 7:2-10); and

an Internet protocol processing section which processes the protocol data unit and performs the terminating call setting procedure under control of the terminating call control section (portion of GGSN performing communication with Internet, as disclosed on 7:16-54).

Claim Rejections - 35 USC § 103

21. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

22. Claims 7, 9-11, 17 and 20, are rejected under 35 U.S.C. 103(a) as being unpatentable over Uskela.

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23. Regarding claim 7, Uskela substantially teaches the limitations of the claim (see the parent claims rejection above).

In addition, Uskela teaches using the source address information for SEI 6:14-24, including use of subnetwork comprising a plurality of IP addresses 7:30-35, identified by masks as shown in example 36-54 for the packets transmitted from the mobile unit.

Uskela does not teach using subnet mask for the packets directed to the mobile unit.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add using subnet mask for the packets directed to the mobile unit to the system of Uskela to improve the system operation in the other direction of the communication by excluding packets from particular addresses.

24. Regarding claims 9 and 10, Uskela substantially teaches the limitations of the claim (see the parent claims rejection above).

In addition, Uskela teaches identifying the packet destination and source ports for the screening list 6:14-18 and using a range of addresses for the screening list profile 7:37-54.

Uskela does not teach using ranges to indicate destination and source ports in the screening list.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add using ranges to indicate destination and source ports in the screening list to the system of Uskela to save memory in the system and simplify the system operation with the screening list.

25. Regarding claims 11, Uskela substantially teaches the limitations of the claim (see the parent claims rejection above).

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In addition, Uskela teaches using IPSEC procedure for authentication 6:17-24.

Uskela does not teach using security parameter index of IPSEC for authentication.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add using security parameter index SPI of IPSEC in the screening list to the system of Uskela to improve the system security.

26. Regarding claim 17, Uskela substantially teaches the limitations of the claim (see the parent claims and claim 15 rejection above).

In addition, Uskela teaches authenticating Internet subscriber 6:18-24.

Uskela does not teach using dynamic registration procedure of Fig. 3 and 6:61-7:54 for the packets directed to the mobile unit.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add using dynamic registration procedure for the packets directed to the mobile unit to the system of Uskela to improve the system operation in the other direction of the communication by excluding packets from particular addresses.

27. Regarding claim 20, Uskela substantially teaches the limitations of the claim (see the parent claims rejection above).

In addition, Uskela teaches using updating the screen list by information from external server and propagated through network, as disclosed on 2:37-54.

Uskela does not teach using an Internet host implementing an agent for receiving updates and responding to them.

Official notice is taken that using an Internet host implementing an agent to implement a process is well known and expected in the art.

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement screen updates of Uskela in a server comprising an agent in the system of Uskela to improve the system operation with an external server inquiries by utilizing well known method of using a software agent.

28. Claims 8, 12 and 13 are rejected (as best understood) under 35 U.S.C. 103(a) as being unpatentable over Uskela in view of Puuskari (US Pub. 2002/0032800).

Uskela substantially teaches the limitations of the claims (see parent claims rejections above).

Uskela does not teach using particulars of IPv4 and Ipv6 protocols.

Puuskari teaches using a wireless system, comprising GGSN implementing filter for packets, based on the Type of service (IPv4), connection type (IPv6) and traffic class field (IPv6), as disclosed in [0007] and [0008].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add using IPv4 and Ipv6 protocols particulars, as Type of service (IPv4), connection type (IPv6) and traffic class field (IPv6) of Puuskari to the system of Uskela to improve the system filtering operation by better identification of the filtered packets.

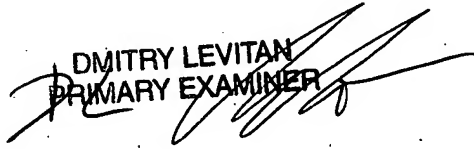
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dmitry Levitan whose telephone number is (571) 272-3093. The examiner can normally be reached on 8:30 to 4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on (571) 272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


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